JVC

HR-D910E

MODEL

USER'S MANUAL

INSTRUCTIONS

Safety Precautions

ENGLISH

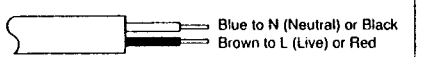
The rating plate and the safety caution are on the rear of the unit.

WARNING — DANGEROUS VOLTAGE INSIDE
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

IMPORTANT (In the United Kingdom)
Mains Supply (240 V~, 50 Hz only)

IMPORTANT

Do not make any connection to the Larger Terminal coded E or Green. The wires in the mains lead are coloured in accordance with the following code:



If these colours do not correspond with the terminal identifications of your plug, connect as follows:
Blue wire to terminal coded N (Neutral) or coloured Black.
Brown wire to terminal coded L (Live) or coloured Red.
If in doubt — consult a competent electrician.

Omkopplaren OPERATE på denna apparat är sekundärt kopplad och skiljer inte apparaten från nätet i läge OPERATE OFF.

The OPERATE button does not completely shut off mains power from the unit, but switches operating current on and off.

BEMAERK: I stilling OFF er apparatet stadig forbundet med lysnettet Hvis det ønskes fuldstændig afbrudt skal netledningen trækkes ud.

This unit is produced to comply with Directives 76/889/EEC, 82/499/EEC, 87/308/EEC and Standard IEC Publ. 65.

Video tapes recorded with this video recorder in the LP (Long Play) mode cannot be played back on a single-speed video recorder.

CAUTION

- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the AC outlet prior to connecting or disconnecting any signal lead or aerial.

WARNING

There are two different types of SECAM colour systems: SECAM-L, used in FRANCE (also called SECAM-West), and SECAM-B, used in Eastern European countries (also called SECAM-East).

1. This recorder can also receive SECAM-B colour television signals for recording and playback.
2. Recordings made of SECAM-B television signals produce monochrome pictures if played back on a video recorder of SECAM-L standard, or do not produce normal colour pictures if played back on a PAL video recorder with SECAM-B system incorporated (even if the TV set is SECAM-compatible).
3. SECAM-L prerecorded cassettes or recordings made with a SECAM-L video recorder produce monochrome pictures when played back with this recorder.
4. This recorder cannot be used for the SECAM-L standard. Use a SECAM-L recorder to record SECAM-L signals.

IMPORTANT: It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.

VHS HQ

- Only cassettes marked "VHS" can be used with this video recorder.
- HQ VHS is compatible with existing VHS equipment.

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How To Use This Instruction Manual

This instruction manual has been designed with both new and experienced users in mind. The first half offers detailed, step-by-step instructions for setting up your video recorder, and on using its basic functions. The second half provides instructions on the many other functions available on your video recorder. So just by following the instructions on the "Getting Started" and "Basic Operation" sections of this manual, you can master all of your recorder's basic functions, including timer-recording. Once you're sufficiently familiar with basic operation, or if you're already an experienced video user, you can move on to the more advanced functions introduced on the following pages. Related features have all been clustered together for easy reference, and their categories (playback, recording, timer, etc.) are easily recognisable by the symbol appearing in the page header. If you ever need to refer to another page for instructions or information, you will be told so by a ☞ mark pointing to the page number.

Remember, you must use your video recorder correctly to fully enjoy it. Please use this manual effectively. It's the surest and quickest way to unlock the full potential of your new JVC video recorder.

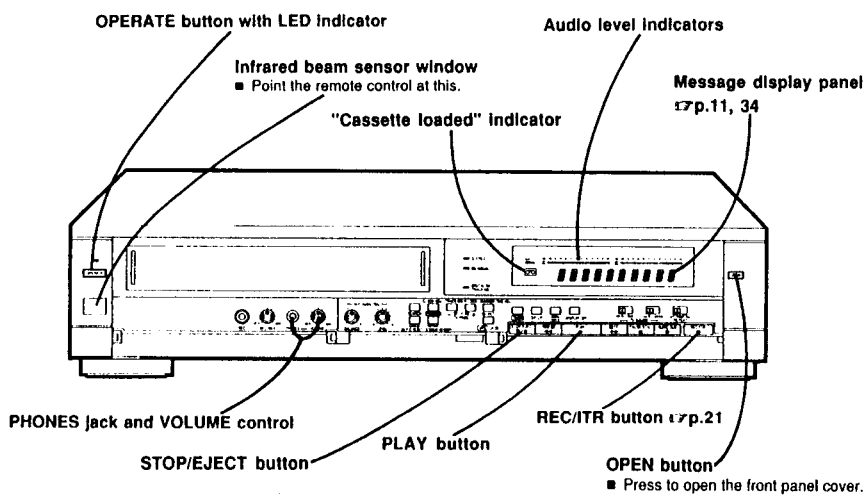
ENGLISH

This instruction manual covers two model versions: "EG" and "E". Be sure to check which model you have purchased.
EG: VPS decoder built-in.
E: VPS decoder not built in. You must connect an optional adapter to take advantage of VPS service. ☞p.27

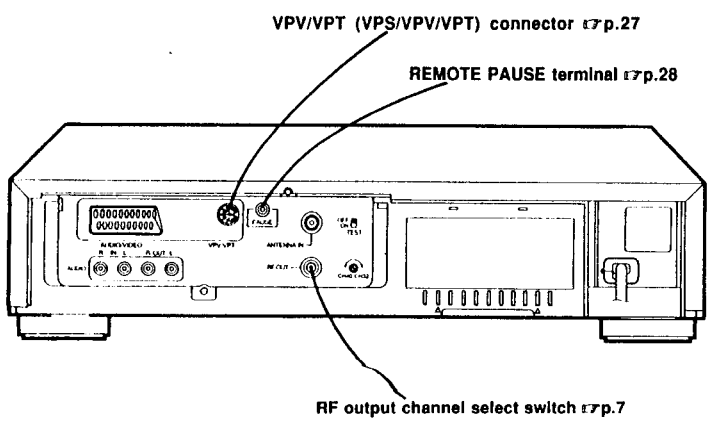
Controls, Indicators, And Connectors

ENGLISH

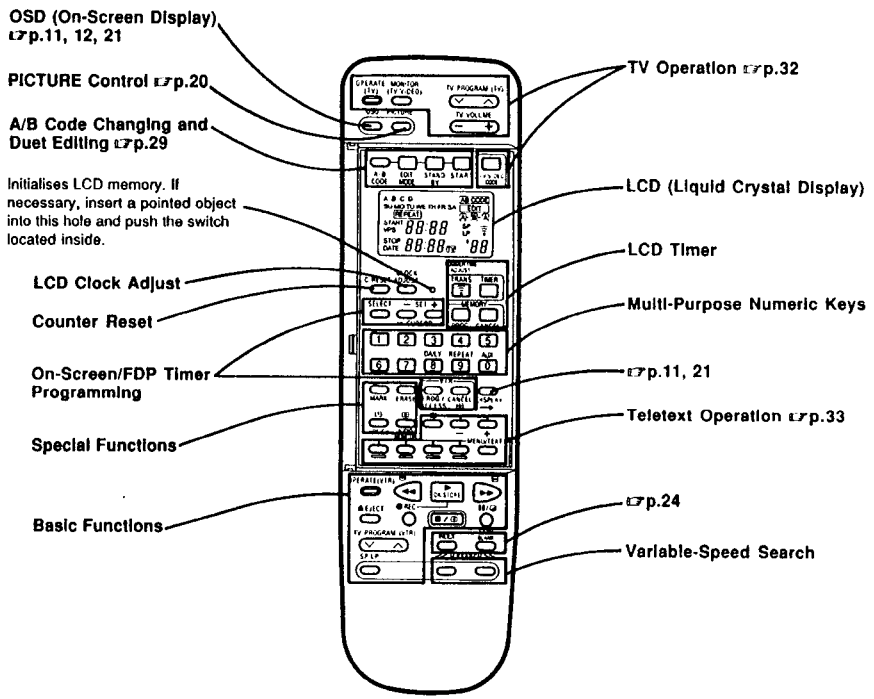
Front Panel


OPERATE button with LED indicator
Audio level indicators
Infrared beam sensor window
■ Point the remote control at this.
Message display panel ☞p.11, 34
"Cassette loaded" indicator
PHONES jack and VOLUME control
PLAY button
REC/ITR button ☞p.21
STOP/EJECT button
OPEN button
■ Press to open the front panel cover.

Back Panel



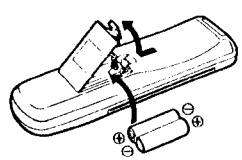
Wireless Remote Control



NOTE:
Some buttons have additional labels (mostly pictograms) for teletext operations. You will find instructions for these in the Instruction Manual of the teletext adapter.

Installing Batteries

1. Open the battery compartment cover as illustrated.
2. Insert 2 "R6"-size batteries (provided) in the correct directions.
3. Replace the cover.

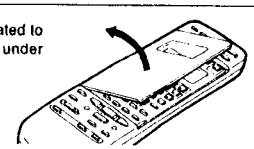


How To Use

The remote control can operate most of your video recorder's functions, as well as basic functions of TV sets of JVC and other brands. ☞p.32.

- Point the remote control at the sensor window.
- The maximum operating distance of the remote control is about 8 m.

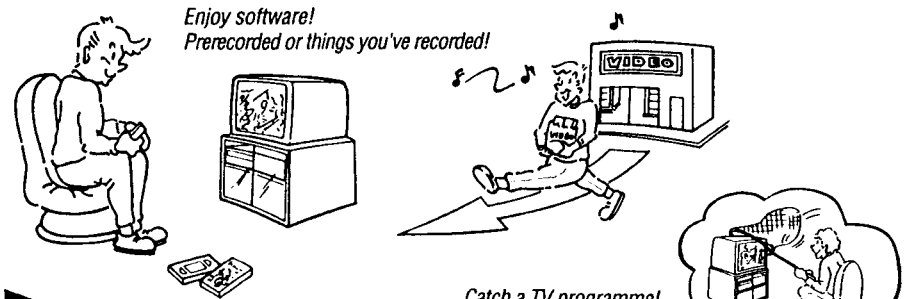
Open the lid as illustrated to access the buttons under the lid.



Getting To Know Your Video Recorder

ENGLISH

The 3 Basic Ways Of Using Your Video Recorder



Enjoy software!
Prerecorded or things you've recorded!

Catch a TV programme!
With push-button ease!

Playback

With the video recorder properly hooked-up to your TV set, viewing videos is as easy as pushing the Play button. Prerecorded VHS software is available just about anywhere, and your video recorder will let you enjoy it all. And, of course, you can enjoy those programmes you've recorded yourself too.

Record TV programmes while you're away.
Watch TV programmes when you want.

Recording

Just press the Record and Play buttons together on your remote control. The recorder will record whatever it is that you're watching. In other words, you can instantly "catch" a TV programme in progress to see it again later, show it to someone else, or keep it as part of your video library. Recording is possible for 4 hours in the SP (Standard Play) mode, and for 8 hours in the LP (Long Play) mode, on a single E-240 cassette.

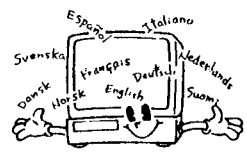
Timer-Recording

By using the built-in timer, you can set your video recorder to record TV programmes for you while you're asleep, while you're away, or while you're doing something else. Then you can watch those programmes later, whenever it's convenient, whenever you want. This is what's called "timeshifting", and now you can do it the JVC way.

Some Other Functions On Your Video Recorder

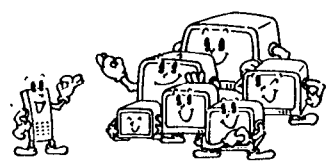
"Message" Display Panel

The video recorder "talks" to you from its message display panel. It's easy to understand what the recorder is doing at any time — a friendlier way to interact with your video deck.



Multi-Language On-Screen Display

Ten languages to choose from. So you can check the engaged mode, program the timer, and more, while watching on-screen messages in your own language.

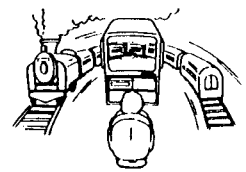


Multi-Brand-TV-Compatible Remote Control

Compatible with most major brands of televisions for basic control functions. Put an end to two-handed remote control.

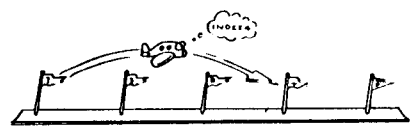
Picture Control

One-touch control over the type of video picture you want. Make it clearer, make it better for dubbing, make it softer, make it sharper — do it all with Picture Control.



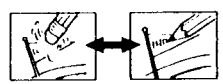
Hi-Fi Stereo Sound

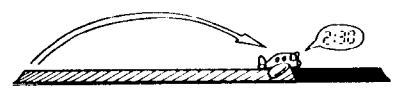
Enjoy films with Hi-Fi stereo soundtracks just as you would in theatres. Use the built-in Sound-Multiplex decoder to record stereo or bilingual programmes.



Index Search

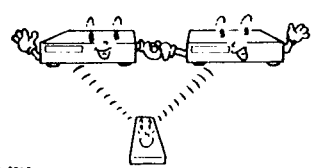
Zooms to the index code number you specify. Easy location of index-coded programmes at the touch of a button. Index codes are automatically marked by the recorder at the beginning of each recording. With index mark/erase, you can also add or delete index codes as you wish.





Blank Search

Lets you find the beginning of a non-recorded section automatically when you want to record on a partially-recorded tape. No more blind searching. Automatically displays the tape's remaining time too.



Duet Editing

Synchronized editing control over two JVC video recorders using one remote control.

Making The Right Connections

ENGLISH

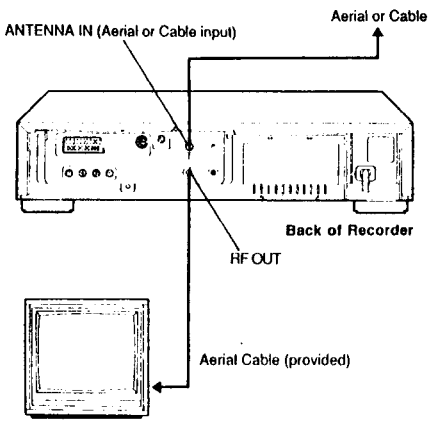
It's essential that your video recorder be properly hooked up for proper results. Follow these steps carefully. THESE STEPS MUST BE COMPLETED BEFORE ANY VIDEO OPERATION CAN BE PERFORMED.

A RECORDER-TO-TV CONNECTION

RF CONNECTION

For TV sets without AV input terminals:

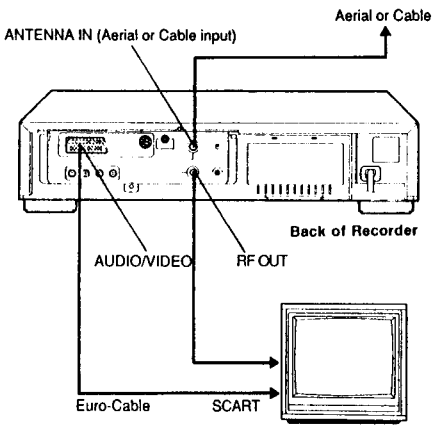
1. Connect the TV aerial cable to the recorder.
2. Connect the recorder to the TV's aerial terminal.



AV CONNECTION

For TV sets with AV input terminals:

1. Connect the aerial, recorder and TV as per "RF CONNECTION".
2. Connect the recorder to the TV's 21-pin SCART connector.



NOTE:

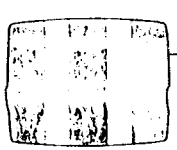
If your television is not stereo-capable, use the recorder's AUDIO OUT connectors to connect to an audio amplifier for Hi-Fi stereo sound reproduction.

B ADJUST VIDEO CHANNEL (UHF 36)

With an RF connection, the video recorder sends picture and sound signals through the connecting cable to your TV on UHF channel 36. Fine-adjust the RF converter to match your TV.

TEST SIGNAL

1. Turn on the recorder.
2. Set the TEST switch to ON.
3. Set your TV to UHF channel 36 and fine-adjust it until you bring in the two vertical white bars on the screen most clearly.
4. Reset the TEST switch to OFF.



NOTE:

If some interference noise is seen on the screen because of broadcasts on neighbouring channels, it is necessary to shift the video channel from UHF channel 36. This is possible for UHF channels 32 through 40. Consult your JVC dealer for making this adjustment.

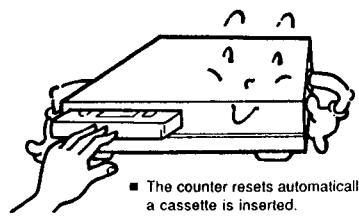
IMPORTANT:

To operate the recorder with your TV using an RF connection, it is always necessary to set your TV's channel to UHF channel 36 (or adjusted channel). With an AV connection, set the TV to the VIDEO (or AV) mode.

Handling Video Cassettes

A LOADING A CASSETTE

1. Press OPEN to open the front panel cover.
2. Insert a cassette with its label side facing you.
   - If the cassette is not loaded firmly it will be ejected.



- The counter resets automatically when a cassette is inserted.

B UNLOADING A CASSETTE

1. Press EJECT.
   - If the cassette will not eject, check to see if "TIMER" is displayed on the message display panel. If it is, press the TIMER button to turn it off.

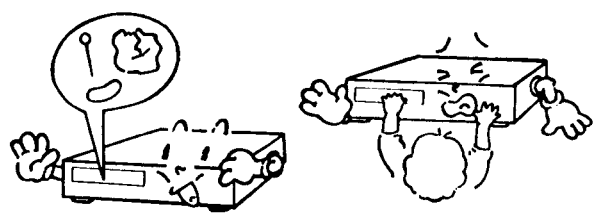
ENGLISH

NOTES:

- Be sure to insert the cassette firmly into the slot; otherwise it will be automatically ejected.
- The automatic loading mechanism will operate only when the cassette is inserted correctly.
- When ejecting the cassette using the remote control's EJECT button with the front panel cover closed, make sure that there are no obstructions preventing the front panel cover from opening.

WARNING

- Do not insert fingers or foreign objects into the cassette loading slot since this could lead to injury or damage to the mechanism. Be especially careful with children.
- Do not try to pull out a cassette once automatic loading has started.



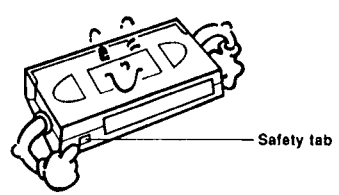
Usable Cassettes And Their Recording Times

This video recorder can record on regular VHS and Super VHS cassettes. However, it will record and play back regular VHS video signals only. It is not possible to play back a recorded Super VHS tape.

Type of Cassette	Recording/Playback Time	
	SP (Standard Play)	LP (Long Play)
E-30	30 minutes	1 hour
E-60	1 hour	2 hours
E-90	1 hour, 30 minutes	3 hours
E-120	2 hours	4 hours
E-180	3 hours	6 hours
E-240	4 hours	8 hours

Accidental Erasure Prevention

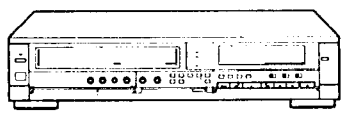
To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



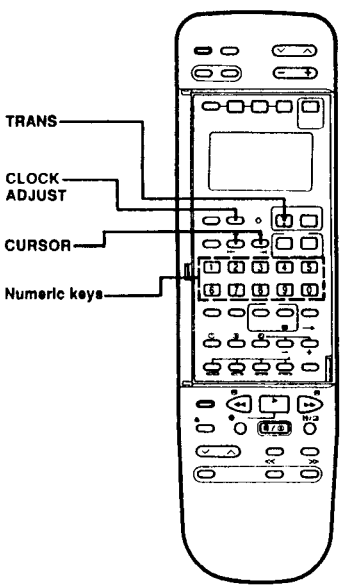
Setting The Clock

ENGLISH

Since your video recorder bases all of its timer recording start and stop "decisions" on the time kept by its built-in clock, accurate setting of this clock is crucial for proper timer-recording results. And, since the remote control's LCD clock and the recorder's clock must be set to the same time, this chapter describes the most convenient way of setting both clocks — setting the LCD clock and transferring its contents to the recorder's clock.

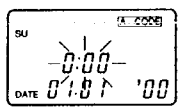


PLUG IN RECORDER



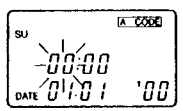
A LOAD BATTERIES (☞p.4)

1 Check the LCD.
---- The time display section (0:00) will be blinking.



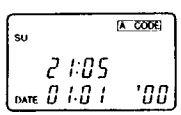
B START CLOCK SETTING

1 Press CLOCK ADJUST.
- Blinking digits will prompt you to items that can be set.



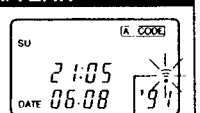
C INPUT THE TIME

2 Press the appropriate numeric keys.
- Example: For 21:05, press 2 1 0 5. Always enter "0" before single-digit entries.



D INPUT THE DAY/MONTH/YEAR

1 Press the appropriate numeric keys.
- Example: For 6th August, 1991, press 0 6 0 8 9 1. Always enter "0" before single-digit entries.
- After setting the year, the transfer-ready mark will appear and blink.



E TRANSFER AND START THE CLOCK

2 Press TRANS.
- The day of the week will automatically appear.
- The remote control's clock will start. At the same time, the set data will be transferred to the recorder, and displayed on the screen for 5 seconds.

TO MAKE CORRECTIONS

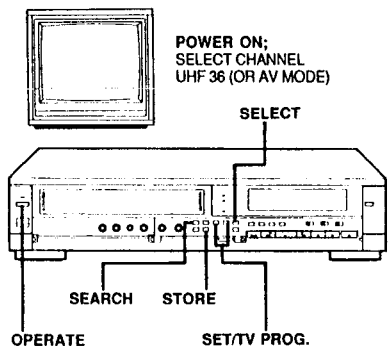
Press either CURSOR button so that the item you want to change blinks.

NOTE:
If you wish to set the recorder's clock directly referring to the message display, ☞p.30. For quick "summer time" (Daylight Saving Time) adjustment, ☞ p.30.

Setting The Tuner

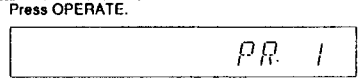
ENGLISH

The procedure introduced here lets you assign receivable channels in your area to channel positions on your video recorder's tuner. Once stored, these can be accessed with the TV PROG. ∨/∧ buttons. During channel scanning, empty tuner channel positions will be skipped so you won't have to go through any "blank" channels to get to the one you want.



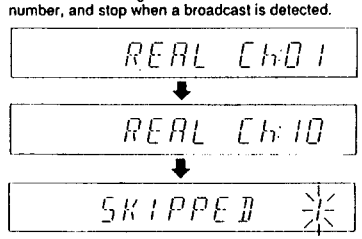
A TURN ON THE RECORDER

1 Press OPERATE.



B SEARCH FOR RECEIVABLE CHANNELS

2 Press SEARCH.
- Automatic scanning will start at the lowest channel number, and stop when a broadcast is detected.

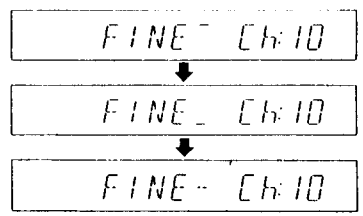


- Regular channels (Ch) are scanned first, then cable channels (CC).

C FINE-TUNE THE CHANNEL

- Check the picture on the TV screen, and fine-tune it if necessary. When the picture is clear, proceed to Step D.

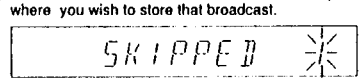
Press SELECT.
3 Press SET (+ or −) so that the "–" sign appears at the centre.



4 Press SELECT.

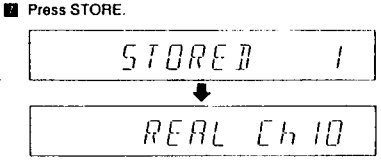
D SELECT A TUNER POSITION

2 Press TV PROG. to select the tuner channel position where you wish to store that broadcast.



E STORE THE CHANNEL

3 Press STORE.



- This message indicates that VHF channel 10 has been stored into the tuner's channel position 1.

F CONTINUE

5 Repeat steps 2 through 7 for other receivable channels.

TO CHANGE PRESET CHANNELS

- If you have already preset some channels, do not use the automatic Channel Search function to change or add channels. ☞ p.31.

Notes:
- If you don't want to store the broadcast detected in Step B, simply press SEARCH to continue automatic scanning. Search will stop as soon as another broadcast is detected.
- Be sure to proceed to the next step within 10 seconds, otherwise Channel Search will be cancelled automatically. If this happens and you wish to continue channel setting, press SEARCH again. Channel scanning will resume, beginning with the next receivable channel.

MODE Mode Displays — What They Mean

ENGLISH

Message Display Panel

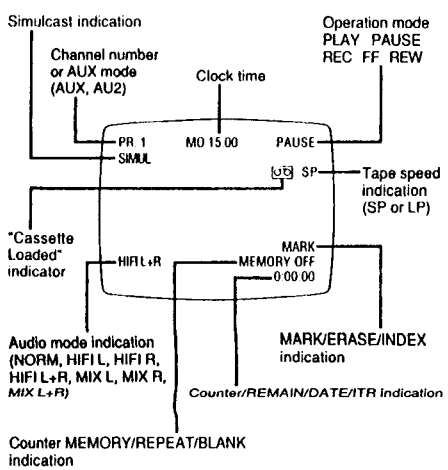
The operation mode is displayed on the recorder's display panel automatically. Displayed messages are designed to be self-explanatory. Here are some of the more common displays:

DISPLAY	MODE	DISPLAY	MODE
PLAY	Play	PAUSE (with channel number)	Record-Pause
STILL	Still	FWD SEARCH	Forward Search
FF	Fast-Forward	REV SEARCH	Reverse Search
REW	Rewind	FWD SLOW	Forward Slow
REC SP (with channel number)	Record	REV SLOW	Reverse Slow
TIMER REC	Timer-Recording	EJECT	Eject

For a more comprehensive list, ☞ p.34.

On-Screen Display

Operation modes (except PAUSE) are displayed on the TV screen only when the On-Screen Display function is set to ON. ☞p.12.



AUTOMATIC INDICATION

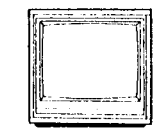
- **Channel, operation mode, audio mode, simulcast indication and "Cassette Loaded" mark**
  When the status is changed, the corresponding indication is displayed on the screen for 5 seconds. The PAUSE mode indication, however, is displayed for as long as the Pause mode is engaged.
- **Time and date**
  When time setting is completed, time and date are displayed for 5 seconds.

MANUAL RECALL

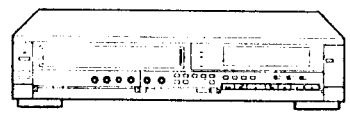
1 Press OSD (On-Screen Display).
- All indications corresponding to the current status is displayed for 5 seconds, leaving the counter information (counter, REMAIN or DATE) on the screen.
- To check only the counter information, press DISPLAY.

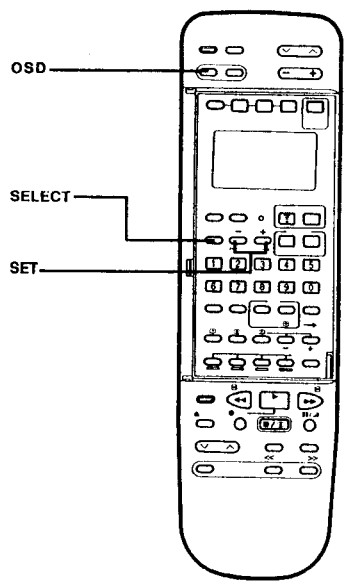
2 Press OSD to clear the counter display.

VCR On-Screen Set Up



POWER ON;
SELECT CHANNEL
UHF 36 (OR AV MODE)





ENGLISH

Language Select

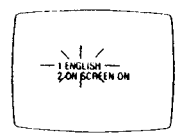
Although the preset on-screen language is English, you can set your video recorder to display on-screen messages in a choice of 10 languages.

A TURN ON THE RECORDER

1 Press OPERATE.

B ACCESS THE LANGUAGE SELECT MODE

2 Press OSD for longer than 2 seconds.
- The current language and On-Screen ON/OFF status are displayed on the screen.
- The displayed language blinks.



C SELECT THE LANGUAGE

3 Press SET + or – until your desired language is displayed
- Available languages are: ENGLISH, DEUTSCH, FRANCAIS, ITALIANO, ESPANOL, NEDERLANDS, SVENSKA, NORSK, SUOMI, and DANSK, in the order they are called up.

4 Press OSD while the language is blinking.
- Now all on-screen messages will be displayed in the selected language.

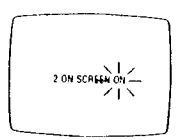
On-Screen Display Function ON/OFF

If you do not want on-screen displays, the function can be cancelled.

1 Press SELECT after step 2 above.
- The On-Screen ON/OFF status is displayed.

2 Press either SET button.

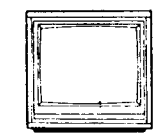
3 Press OSD while the status is blinking.
- Even with the function set to OFF, "PAUSE" is displayed for as long as the Pause mode is engaged. Of course, on-screen timer programming is not affected either.



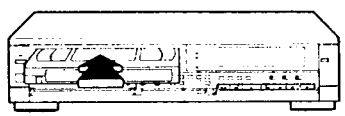
Playback

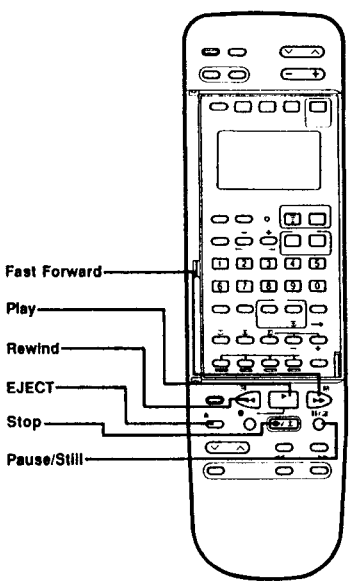
ENGLISH

The easiest, most basic operation possible with your video recorder is tape playback. Already-recorded signals on a video tape are read by your video recorder and displayed on your TV just like a TV programme.



POWER ON;
SELECT CHANNEL
UHF 36 (OR AV MODE)





A LOAD A CASSETTE

1 Insert a cassette.
- The recorder power will come on automatically.
- If the safety tab on the cassette is removed, playback will start automatically.

B TO START PLAYBACK

2 Press ► (Play).

C TO STOP PLAYBACK

3 Press ■ (Stop).

D TO REWIND OR FAST-FORWARD

4 Press ◄◄ (Rewind) to rewind the tape.
5 Press ►► (Fast Forward) to fast-forward the tape.
- Press ■ (Stop) to stop rewind or fast-forward.

E TO EJECT THE TAPE

6 Press EJECT.

High-Speed Forward And Reverse Search

During Playback:

1 Press ►► (Fast Forward) for high-speed forward search.
2 Press ◄◄ (Rewind) for high-speed reverse search.
3 Press ► (Play) to resume normal playback.
- For short searches, keep ►► (Fast Forward) or ◄◄ (Rewind) pressed for more than 2 seconds. When released, normal playback will continue.

Still Playback And Frame Advance

During Playback:

1 Press II (Pause/Still) to view a still picture.
2 Press again to advance the picture frame by frame.
3 Press ► (Play) to resume normal playback.

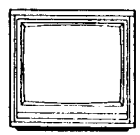
NOTES:

- Tapes with monaural soundtracks (normal audio) are automatically played back in the NORM mode. When playing back tapes with Hi-Fi stereo, bilingual, or audio-dubbed soundtracks, ☞p.20.
- The recorder automatically stops when still continues for more than 5 minutes.
- If the still picture is unstable (vertical jitter) use the recorder's V. LOCK buttons to correct the picture.
- During search playback, some noise bars will appear.
- If noise bars appear during playback, correct using manual tracking. ☞p.19.
- There is no audio during search, still, or frame-by-frame playback.
- The recorder automatically rewinds when the end of the tape is reached.

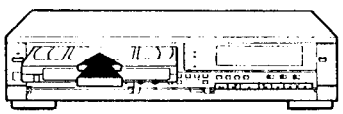
Recording

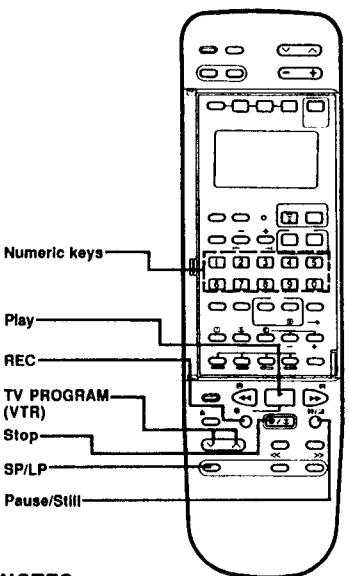
ENGLISH

TV signals being received by the recorder's built-in tuner can be recorded onto a video tape. This is realtime video recording.



POWER ON;
SELECT CHANNEL
UHF 36 (OR AV MODE)





A LOAD A CASSETTE

1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

B CHOOSE A PROGRAMME

2 Press TV PROGRAM (VTR) or the numeric keys to select the channel you wish to record.

C SELECT THE TAPE SPEED

3 Press SP/LP.

D TO START RECORDING

4 Press ● REC (Record) and ► (Play) simultaneously.

E TO PAUSE RECORDING

5 Press II (Pause/Still).
6 Press ► (Play) to resume recording.

F TO STOP RECORDING

7 Press ■ (Stop).

To Watch Another Programme While Recording

During Record:

1 Use the channel controls on the TV to select the other channel you wish to view.
- The programme selected with the TV channel controls will appear on the TV screen while the one selected with the video recorder's channel controls will be recorded on the tape.

NOTES:

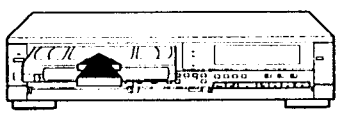
- To start recording with the recorder's REC/ITR button, press it once on its own. Pressing REC/ITR more than once activates the Off-Timer. ☞p.21.
- After pause, when recording is resumed, a few frames recorded before the pause may be overlapped by the new recording. This is meant to reduce picture distortion and is not a malfunction.
- The recorder automatically stops when record-pause continues for more than 5 minutes.
- If the Record button does not work, check to see if the cassette's safety tab has been removed.
- When a VPS programme is being broadcast on the selected channel, "VPS" appears on the display panel. ☞p.27 for information on VPS.
- The channel cannot be changed while recording is in progress. To change the channel, engage the record-pause mode, then change the channel.
- The recorder automatically rewinds when the end of the tape is reached during recording.
- For stereo or bilingual recording, ☞p.22.

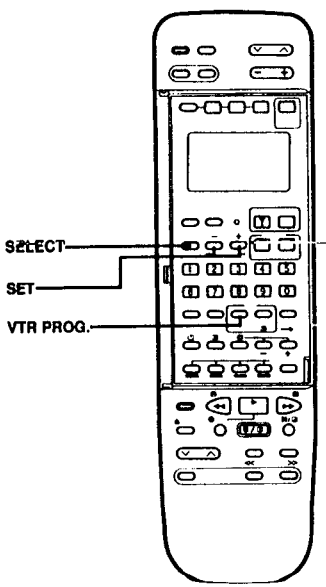
Timer-Recording

ENGLISH

The on-screen and LCD timer programming methods are introduced here. Both have different advantages. With on-screen programming, you can follow easy-to-see guides on your TV screen. With LCD programming, you can preserve the programmed data in memory and transfer it to the recorder anytime when necessary. If you prefer to use the recorder's controls and message display panel, ☞p.25. TIMER PROGRAMMING IS NOT POSSIBLE UNLESS THE CLOCK HAS BEEN SET.

POWER ON;
SELECT CHANNEL
UHF 36 (OR AV MODE)





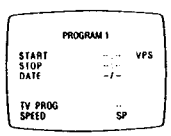
On-Screen Timer Programming

A LOAD A CASSETTE

1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

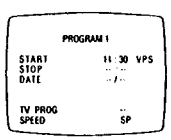
B ACCESS THE ON-SCREEN PROGRAM DISPLAY

2 Press VTR PROG.
- You are ready to input data into Program No. 1.
- To change the program number, press SET.



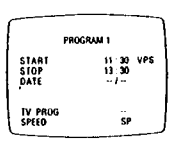
C INPUT THE START TIME

3 Press SELECT, and then SET to input the hour.
4 Press SELECT, and then SET to input the minute.



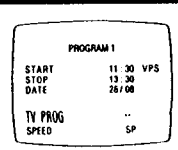
D INPUT THE STOP TIME

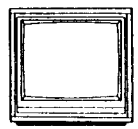
5 Press SELECT, and then SET to input the hour.
6 Press SELECT, and then SET to input the minute.

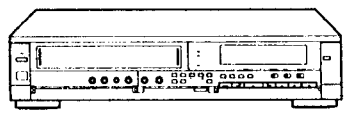


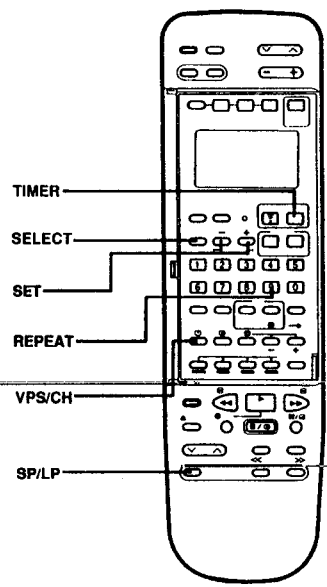
E INPUT THE DATE

7 Press SELECT, and then SET to input the day.
8 Press SELECT, and then SET to input the month.



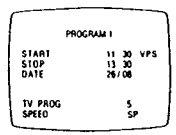






F INPUT THE CHANNEL NUMBER

9 Press SELECT, and then SET to input the channel.
- The screen colour changes to green.
- Normally, you should leave "VPS" on so you can take advantage of VPS recording*. You can cancel VPS by pressing the VPS/CH button whenever the memory program is open. If you have any questions about VPS, ☞p.27.



G SELECT THE TAPE SPEED

10 Press SELECT, and then SP/LP.

H END ONE PROGRAM

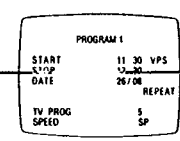
11 Press SELECT.
- The program number will blink.
- To make corrections, advance with SELECT to the item you wish to change and input new data with SET.
- If you need to set another program, press SET and repeat steps 3 through 11.

I SET TO TIMER MODE

12 Press TIMER.
- The recorder will enter the timer mode and power will go off.
- Press TIMER again to release the timer mode.

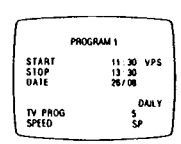
Variations in Step E (Weekly Program)

This function lets you set the recorder to timer-record at the same time on the same day every week. Use it to record weekly serials.
- First press REPEAT (numeric key "9") and then enter the date.



Variations in Step E (Daily Program)

This function lets you set the recorder to timer-record at the same time everyday. Use it to record daily serials.
- To record a daily serial starting on the day of setting, press REPEAT twice (numeric key "9") and then press SELECT.
- To record a daily serial starting on a certain day, press REPEAT twice and then enter the date.

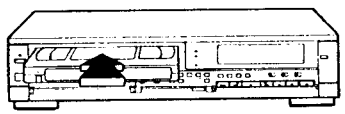


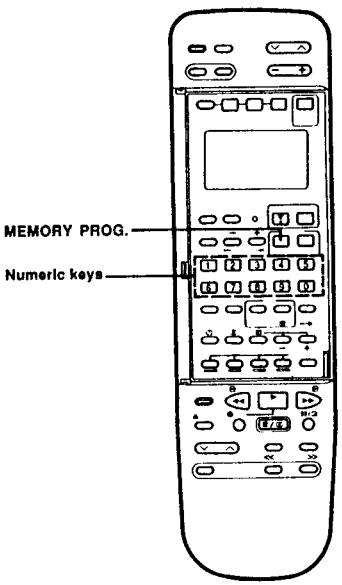
* VPS adapter is required on "E" version.

CAUTION:
Make sure that the tape length is enough to record the intended programme. If the tape finishes before the stop time is reached, the cassette is automatically ejected. If the recorder is placed inside a rack, there must be sufficient clearance to allow the front panel cover to open unobstructed.

Timer-Recording (Cont'd)

ENGLISH





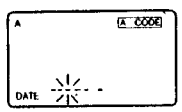
LCD Timer Programming

A LOAD A CASSETTE

1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

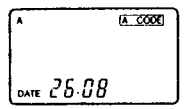
B ACCESS THE LCD TIMER PROGRAM

2 Press MEMORY PROG. (Program A)
- Four programs (A, B, C, and D) are available. To select another program, press MEMORY PROG.



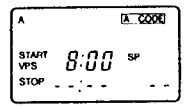
C INPUT THE DATE

1 Press the appropriate numeric keys.
- Example: For 26th August, press 2 6 0 8.



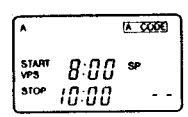
D INPUT THE START TIME

1 Press the appropriate numeric keys.
- Example: For 8:00, press 0 8 0 0.

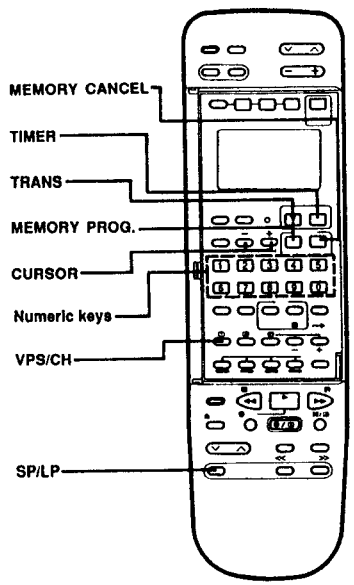


E INPUT THE STOP TIME

1 Press the appropriate numeric keys.
- Example: For 10:00, press 1 0 0 0.

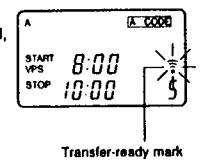


ENGLISH



F INPUT THE CHANNEL NUMBER

1 Press the appropriate numeric keys.
- Example: For channel 5, press 5.
- After the channel has been entered, the transfer-ready mark will appear and blink.
- Normally, you should leave "VPS" on so you can take advantage of VPS recording*. You can cancel VPS by pressing the VPS/CH button whenever the memory program is open. If you have any questions about VPS, ☞p.27.



G SELECT THE TAPE SPEED

1 Press SP/LP.

H TRANSFER THE DATA TO THE RECORDER

1 Press TRANS with the remote control directed to the recorder's Remote Sensor window.
- You will see "PROGRAM 1" on the display panel, telling you that the data has been successfully transferred to the recorder's Program 1 memory.

I SET TO TIMER MODE

1 Press TIMER.
- The recorder will enter the timer mode and power will go off.
- Press TIMER again to release the timer mode.

Variations In Step C (Weekly Program)

This function lets you set the recorder to timer-record at the same time on the same day every week. Use it to record weekly serials.
- First press numeric key "9" (REPEAT) and then enter the date.

Variations In Step C (Daily Program)

This function lets you set the recorder to timer-record at the same time every day. Use it to record daily serials.
- To record a daily serial starting on the day of setting, press numeric key "8" (DAILY) and then press CURSOR → until the display changes to time input mode.
- To record a daily serial starting on a certain day, press numeric key "8" (DAILY) and then enter the date.

For other timer programming methods, ☞ p.25.
Any questions? ☞ p.26.

* VPS adapter is required with "E" version.

TO MAKE CORRECTIONS

- Press either CURSOR button so that the item you want to change blinks, and enter new data.

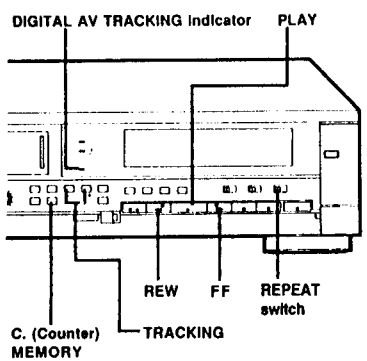
TO CANCEL PRESET PROGRAMS

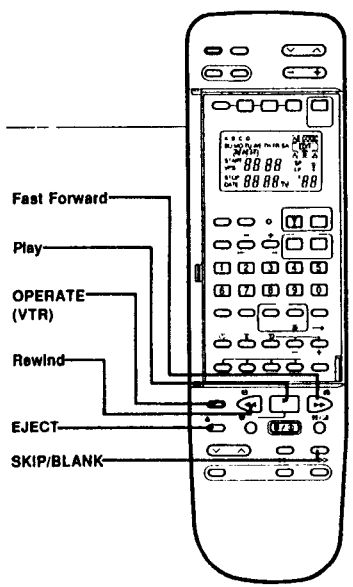
1 Press MEMORY PROG. to call up the program you wish to cancel (A – D).
2 Press MEMORY CANCEL.

For Playback

ENGLISH

Take advantage of special functions possible with the recorder's controls or the remote control.





NOTE:
When a new tape is inserted, the recorder enters the automatic tracking mode automatically.

Repeat Playback (Recorder)

Your video recorder can automatically play back the whole tape or an index-marked portion 5 times repeatedly.
1. Set the REPEAT switch to FULL or INDEX.
2. For Index Repeat playback, locate the index code at which you wish to start playback. (Index Search, ☞p. 24.)
3. Press PLAY. Repeated playback will start. After repeating 5 times consecutively, playback will stop.
   - Be sure to reset the REPEAT switch to OFF before pressing the PLAY button again; otherwise repeat playback will resume.

Manual Tracking (Recorder)

Your video recorder is equipped with automatic tracking control; the DIGITAL AV TRACKING indicator lights or blinks when automatic tracking is on. If you wish to adjust tracking manually during playback:
1. Press TRACKING (+ and –) simultaneously for manual override.
   - The DIGITAL AV TRACKING indicator will go out.
2. Press TRACKING (– or +) to adjust tracking when required.
3. Press TRACKING (+ and –) simultaneously to return to automatic tracking.

To adjust tracking during slow motion, simply press TRACKING (– or +) to obtain the best picture.

Memory Play (Recorder and Remote Control)

For automatic start of playback after tape is rewound:
1. Press ◄◄ (Rewind).
2. Press ► (Play) within 2 seconds.

For automatic power off after tape is rewound:
1. Press ◄◄ (Rewind).
2. Press OPERATE (VTR) within 2 seconds.

Memory Play (Recorder)

For automatic start of playback beginning at counter position "0:00:00":
1. Press C. MEMORY.
2. Press REW (or FF).
3. Press PLAY within 2 seconds.

Memory Eject (Remote Control)

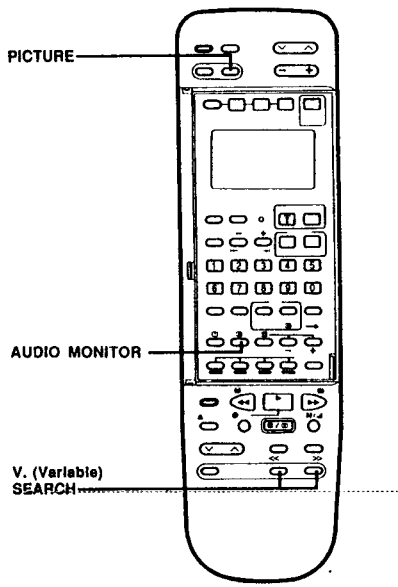
For automatic tape eject after tape is rewound:
1. Press ◄◄ (Rewind).
2. Press EJECT within 2 seconds.

Skip Search (Remote Control)

Your recorder offers a simple way of skipping over unwanted sections of recorded TV programmes.

During Playback:
1. Press SKIP/BLANK from 1 to 4 times.
   This fast-motions through 30-sec. to 2-min. of tape.
   - Playback resumes automatically.
   - Press ► (Play) to cancel a Skip Search midway.

ENGLISH



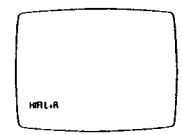
NOTES:

- If noise bars appear during slow motion, correct using manual tracking. ☞ p.19.
- During variable-speed search, some noise bars will appear.
- When playing back LP recordings in the search, still, or frame-by-frame playback mode, the picture will be distorted, and there may be a loss of colour.

Soundtrack Selection

Your video recorder is capable of recording three soundtracks (HIFI L, HIFI R and NORM) simultaneously, and playing back the selected soundtrack.

- Pressing AUDIO MONITOR changes the channel:
  L+R → L → R
- Pressing AUDIO MONITOR for more than 2 seconds changes the track:
  HIFI → NORM → MIX



Usual settings
HIFI L + R: for Hi-Fi stereo tapes
HIFI L or HIFI R: for bilingual tapes
MIX L + R : for audio-dubbed tapes

NOTE:

Normally use the HIFI L + R position. Then Hi-Fi stereo tapes are played back in stereo, and tapes with normal audio only are played back automatically in the NORM mode.

Variable-Speed Search And Slow Motion

You can view pictures in slow to fast motion in either direction. The V. (Variable) SEARCH buttons let you control the speed and the direction.

During Play or Still:
1. Press either V. SEARCH button. Tape will move in the corresponding direction.
   - The more times the button is pressed, the faster the playback picture will move.
   - To decrease speed, press the button for the opposite direction.
   - Press ► to resume normal playback.

Picture Control

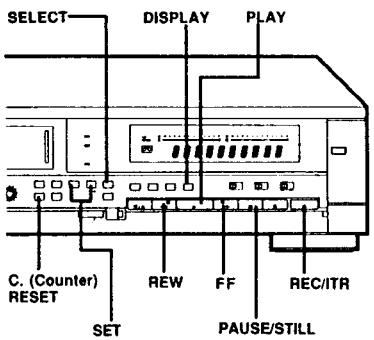
Your video recorder has a built-in video processor that lets you choose the type of playback picture that's best for any given application.

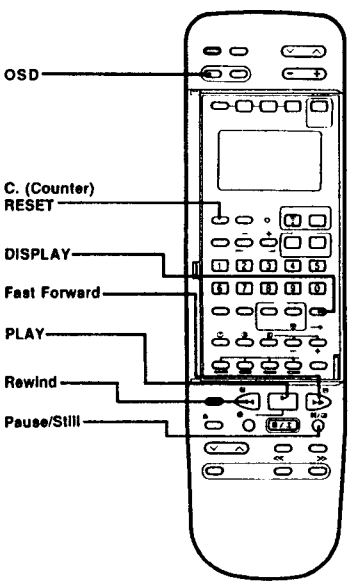
During Play:
1. Press PICTURE as many times as required to reach the desired setting.
   - The display panel shows the setting for 5 seconds.

Display Panel	When To Use
ENHANCED	When viewing tapes with noise due to repeated playback, such as rental videos.
TAPE DUB	When editing to another recorder.
SOFT PIX	When you want a soft picture.
SHARP PIX	When you want a sharp picture.
OFF	When no modification is required.

For Recording

ENGLISH





NOTES:

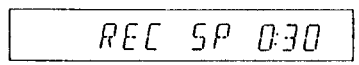
- With Retake, rainbow noise may occur in the rewound and re-recorded section. Retake in the LP mode is not recommended.
- The remaining time is inaccurate while the display is blinking. When blinking stops, the remaining time is shown.

Instant Timer Recording (Off Timer) (Recorder)

You can start a recording and then set the recorder to shut off automatically after a set duration.

During Record:

1. Press REC/ITR (on the recorder). A "REC SP 0:30" or "REC LP 0:30" indication appears, advising that power will switch off after 30 minutes.



- "ITR 0:30" will be displayed on the TV screen.

2. Press REC/ITR again to delay the off-time by 30-minute increments (up to 4 hours).
   - For a more precise setting, use the SELECT/SET buttons to set the exact time required (possible up to 8 hours and 59 minutes).

Retake (Recorder and Remote Control)

You can cut out unwanted parts of a TV programme while you're recording it.

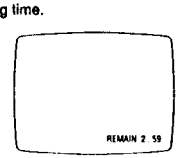
During Record:

1. Press PAUSE/STILL.
2. Press FF or REW for normal-speed search in the corresponding direction.
   - Release to return to Record-Pause mode.
3. Press PLAY when you wish to resume recording.

Remaining Tape Time Indication (Recorder and Remote Control)

When you need to know the tape's remaining time.

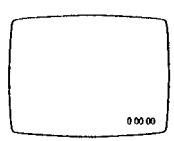
1. Press DISPLAY until "REMAIN" appears on the screen. Approximate remaining tape time is displayed.
2. To clear the screen, press OSD.
   - The display panel also shows remaining tape time, but, during recording, changes back to the "REC" mode display after 5 seconds.



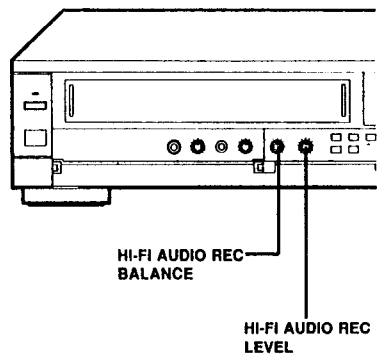
Elapsed Recording Time Indication (Recorder and Remote Control)

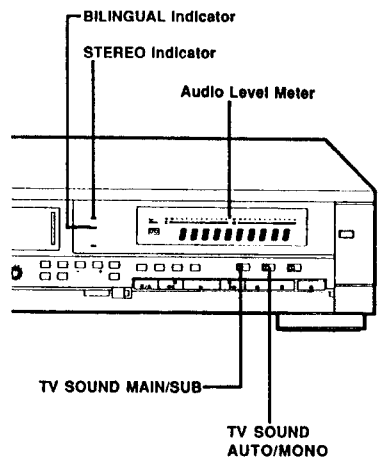
When you need to know the exact time of a recording.

1. Press DISPLAY until a counter reading appears on the screen.
2. Press C. (Counter) RESET and then start recording.
   - The counter will be reset to "0:00:00", and show the elapsed time as the tape runs.
   - The display panel also shows a counter reset to "0:00:00", but is replaced by the Record mode display.
3. To clear the screen, press OSD. And press DISPLAY anytime when you want to check the elapsed recording time.



ENGLISH





Hi-Fi Audio Recording Level Control

In most cases, setting the Hi-Fi AUDIO REC BALANCE and LEVEL controls to the center position will provide satisfactory results. If necessary, you can adjust the Hi-Fi audio recording level more precisely by referring to the audio level meter above the message display.

- Turn the BALANCE control to adjust the balance between left and right channels.
- Turn the LEVEL control to adjust the level. When the level meter lights up to or near 0 dB with the loudest signal being applied, the recording level is optimum.

NOTES:

- Make sure that the "HIFI L + R" position is selected with the AUDIO MONITOR button. ☞p.20.
- Noise will increase if the recording level is too low, while distortion will increase if the level is too high.

Stereo And Bilingual

Your recorder is equipped with a Sound-Multiplex decoder for reception of stereo and bilingual broadcasts.

- When a stereo programme is being received, the STEREO indicator lights. (The TV SOUND AUTO/MONO switch must be set to AUTO.)
- When a bilingual programme is being received, the BILINGUAL indicator lights.

To Record Stereo Programmes

Stereo programmes are automatically recorded in stereo on the Hi-Fi audio track (with the normal audio track recording mixed L and R channel sound). No special operation is required. Simply follow the basic recording procedure.

- To listen to the stereo soundtrack while recording, select "HIFI L+R" with AUDIO MONITOR. ☞p.20

NOTE:

- If the quality of stereo sound being received is poor, set the TV SOUND AUTO/MONO switch to MONO. The STEREO indicator will go off, and the broadcast will be received in monaural with better quality.

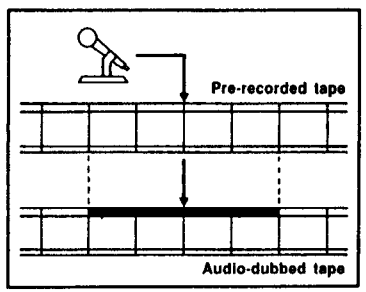
To Record Bilingual Programmes

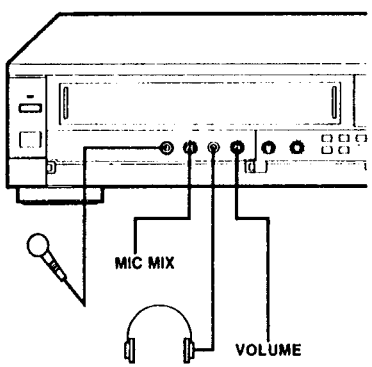
Bilingual programmes are automatically recorded in bilingual on the Hi-Fi audio track. You can select either soundtrack (Main or Sub) to record on the normal audio track.

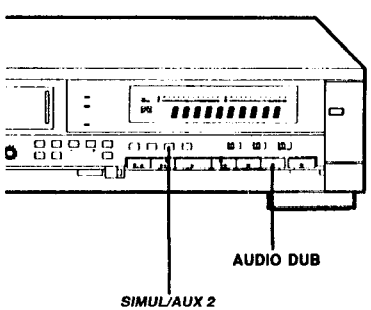
- Set the TV SOUND MAIN/SUB switch as required.
- To listen to the Hi-Fi soundtrack during recording, select "HIFI L" for Main, and "HIFI R" for Sub.
- To listen to the normal soundtrack, select "NORM".

For Recording (Cont'd)

ENGLISH







Audio Dubbing

Audio dubbing means replacing the normal audio sound of a pre-recorded tape with a new soundtrack. Create your personal-touch tapes by recording commentary, etc.

PREPARATION

1. Connect a microphone to the MIC jack.
2. Select the AUX INPUT 2 mode. (First engage the AUX INPUT mode with "0" key or TV PROGRAM, then press SIMUL/AUX 2.)

PROCEDURE

1. Adjust the input level with the MIC MIX control.
2. Start playback and engage the Still mode at the point from which you wish to start audio dubbing.
3. Press the AUDIO DUB button.
4. Press the PLAY button.
   - Audio dubbing will start.
5. Press the PAUSE/STILL button to stop audio dubbing temporarily.

NOTES:

- Audio dubbing will stop automatically at the counter reading of "0:00:00", and the recorder will enter the Play mode. Check the counter before starting audio dubbing.
- If howling occurs, move the microphone away from the TV or reduce the TV sound volume. If necessary, monitor the sound with headphones.
- If you wish to use audio sources other than microphone input, connect the audio equipment to the rear panel AUDIO IN connectors. (For monaural equipment, use the L connector.) If both the microphone and another audio source are connected, mixed recording is possible.
- Audio dubbing is also possible with input via the 21-pin AUDIO/VIDEO socket. In this case, use the AUX INPUT mode.

Simulcast Recording

Your recorder lets you record an audio programme while recording a TV programme. In the Simulcast mode, the TV soundtrack is recorded on the normal audio track and the external audio programme is recorded on the Hi-Fi audio track, so you can have two independent programmes. If FM simulcast TV programmes are available, record the TV programme and its FM-broadcast soundtrack simultaneously.

PREPARATION

1. Connect an FM tuner to the rear panel AUDIO IN connectors.
2. Set the FM tuner to the desired broadcast.

PROCEDURE

1. Select the TV programme you wish to record.
2. Select the SIMULCAST mode by pressing the SIMUL/AUX 2 button.
3. Start recording.

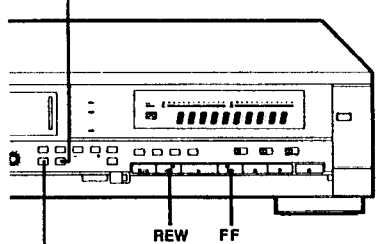
NOTES:

- If you stop recording with the PAUSE/STILL button to avoid unwanted TV programme material, the audio programme is also cut.
- After finishing simulcast recording, be sure to press the SIMUL/AUX 2 button to cancel the Simulcast mode, otherwise it is not possible to record on the Hi-Fi track from the built-in tuner.

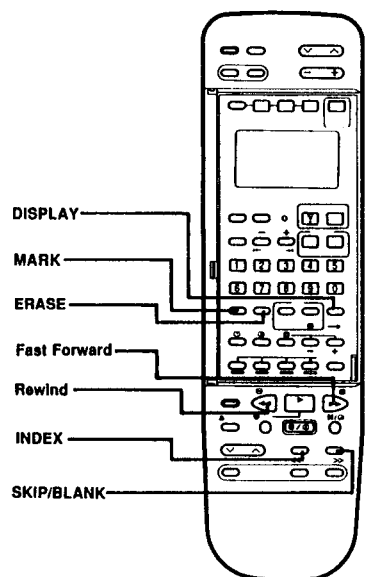
For Tape Access

ENGLISH

C. (Counter) MEMORY



C. (Counter) RESET



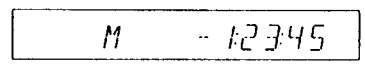
NOTES:

- Index codes cannot be marked or erased if the cassette's safety tab is removed. ☞ p.8.
- Press ► (Play) or ■ (Stop) to cancel Index Search or Blank Search.
- If the end of the tape is reached during Index Search or Blank Search, the mode is cancelled and the tape is rewound to the beginning.
- When a fully recorded tape is used for re-recording new material, Blank Search can be used to detect the end of the new material.

Counter Memory (Recorder)

During Play or Stop:

1. Press C. RESET (with a counter reading on the display) at a point you wish to locate later.
   - The counter will read "0: 00: 00".
2. Press C. MEMORY.
   - "M" will appear in front of the counter digits.
   - "MEMORY ON" will be displayed on the TV screen.
3. Press REW (or FF) when you wish to return to that point.
   - The tape will rewind (or fast forward) and stop at about "0: 00: 00" automatically.



4. To cancel the Counter Memory mode, press C. MEMORY.

Index Search (Remote Control)

This function gives you quick access to any one of 9 index codes in either direction. Your recorder automatically marks index codes at the beginning of each recording. You can manually mark and erase index codes as well.

During Playback or Stop:

1. Press INDEX. "INDEX 1" will be displayed on the screen.
   - If you wish to access index codes 2 through 9, press INDEX repeatedly until the correct index number is displayed.
2. Press ►► (Fast Forward) or ◄◄ (Rewind). Index Search will start in the corresponding direction.

Manual Index Mark/Erase (Remote Control)

TO MARK

During Playback or Record:

1. Press MARK. The recorder will mark an index code at that location.

TO ERASE

During Playback or Still:

1. Press ERASE. The recorder will fast-forward to the nearest index code and delete it.

Blank Search (Remote Control)

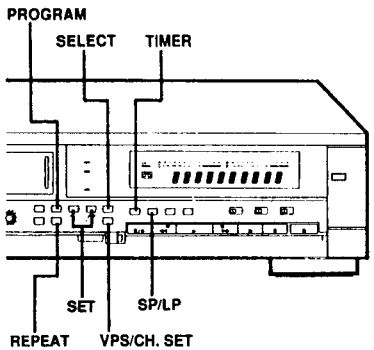
This function lets you quickly locate the blank portion of a partially recorded tape.

During Stop:

1. Press SKIP/BLANK.
   - The recorder automatically fast-forwards or rewinds to the end of the recorded portion of tape, and stops.
   - The tape's remaining time is automatically displayed. Press DISPLAY to return to the realtime counter display.

For Timer-Recording

ENGLISH



Things You Should Know

Timer-recording is one of the most useful functions of your video recorder, and, if you don't understand it, it can be one of the most complicated too. This chapter describes the method of programming the timer directly with the recorder's controls, and how the message display helps you in timer recording. Please read the following to get a clear idea about why things work the way they work, and what you should do when things don't work as expected.

Direct Timer Programming

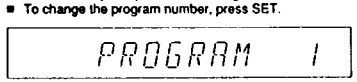
The built-in 1-year/8-event programmable timer can be set directly at the recorder, referring to the message display panel. Make sure that the message display panel shows the correct current time.

A LOAD A CASSETTE

- Insert a cassette with the safety tab in place.
  - The recorder power will come on automatically.

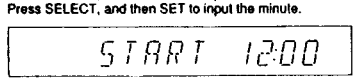
B

- Press PROGRAM.
  - You are ready to input data into Program No. 1.
  - To change the program number, press SET.



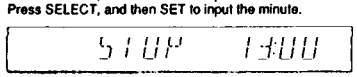
C INPUT THE START TIME

- Press SELECT, and then SET to input the hour.
- Press SELECT, and then SET to input the minute.



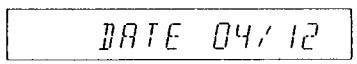
D INPUT THE STOP TIME

- Press SELECT, and then SET to input the hour.
- Press SELECT, and then SET to input the minute.



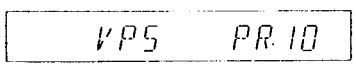
E INPUT THE DATE

- Press SELECT, and then SET to input the day.
- Press SELECT, and then SET to input the month.



F INPUT THE CHANNEL NUMBER

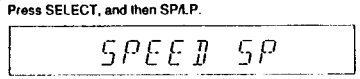
- Press SELECT, and then SET to input the channel.



- Normally, you should leave "VPS" on so you can take advantage of VPS recording*. You can cancel VPS by pressing the VPS/CH.SET button whenever the memory program is open. If you have any questions about VPS, ☞p.27.

G SELECT THE TAPE SPEED

- Press SELECT, and then SP/LP.



H END ONE PROGRAM

- Press SELECT.
  - The current program number will appear and blink.
  - To make corrections, advance with SELECT to the item you wish to change and input new data with SET.
  - If you need to set another program, press SET and repeat steps 3 through 11.

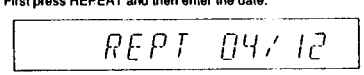
I SET TO TIMER MODE

- Press TIMER.
  - The recorder will enter the timer mode and power will go off.
  - Press TIMER again to release the timer mode.

Variations in Step E (Weekly Program)

This function lets you set the recorder to timer-record at the same time on the same day every week. Use it to record weekly serials.

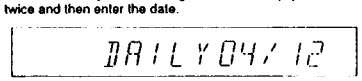
- First press REPEAT and then enter the date.



Variations in Step E (Daily Program)

This function lets you set the recorder to timer-record at the same time everyday. Use it to record daily serials.

- To record a daily serial starting on the day of setting, press REPEAT twice and then press SELECT until the display changes to channel setting mode.
- To record a daily serial starting on a certain day, press REPEAT twice and then enter the date.



NOTE:

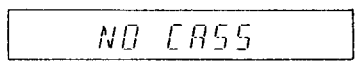
The REPEAT button rotates the date set mode among DATE, REPT, and DAILY.

*VPS adapter is required on "E" version.

ENGLISH

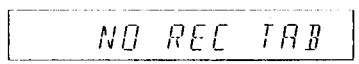
Error Messages

The following error messages may appear on the message panel when you press the TIMER button to engage the Timer Standby mode. Here's why, and what you should do.



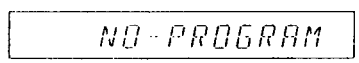
- Displayed for 5 seconds and the Timer Standby mode is cancelled.

WHY: There is no cassette in the recorder.
WHAT TO DO: Insert a cassette. Press TIMER again.



- Displayed for 5 seconds. The Timer Standby mode is cancelled.

WHY: The inserted cassette has its safety tab removed.
WHAT TO DO: Eject that cassette. Insert a cassette with its safety tab intact. Or cover the safety tab hole of the cassette with adhesive tape and re-insert it. Press TIMER again. ☞p.8.



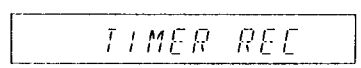
- Displayed for 5 seconds. The Timer Standby mode is cancelled.

WHY: There are no preset programs in memory.
WHAT TO DO: Check the programmed data and re-program it as necessary. Press TIMER again.

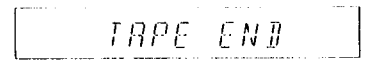
Other Messages

The following messages may also be encountered during timer-recording.

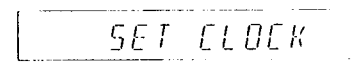
WHY: The recorder is in the Timer Standby mode. This is the normal display you should see when you press the TIMER button.



WHY: Normal display while timer-recording is in progress.



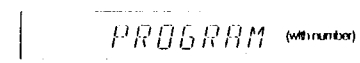
WHY: If this and "TIMER REC" are alternately displayed, it means that the end of the tape was reached while timer-recording was in progress. Therefore, the preset program may not be recorded in its entirety.



WHY: This means the clock must be set. It's displayed when time-keeping is terminated due to a power failure or because the recorder's power plug was pulled from the AC outlet.
WHAT TO DO: Set the clock. ☞p.9.

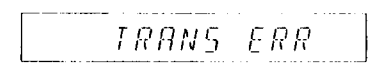
- If power was interrupted, it's also likely that all preset timer programming data has been erased. Please check and re-program as necessary.

The following messages may be encountered when the TRANS button of the remote control is pressed. ☞p.18.



- Displayed for 5 seconds.

WHY: The transferred data has been stored in that program number. (The smallest vacant program number is always selected automatically.)



- Displayed for 5 seconds.

WHY: Data was not successfully transferred. The program may have been incorrectly preset, or the recorder's clock has not been set.
WHAT TO DO: Check the LCD program, and re-program as necessary. Transfer the correct data.

- Displayed for 5 seconds.

WHY: All the recorder's timer programs (1 – 8) are preset.
WHAT TO DO: Cancel unnecessary programs, and transfer again.

For Timer-Recording (cont'd)

ENGLISH

On Checking And Cancelling Programs

Since executed programs are automatically cleared from memory (except those for daily and weekly serials), cases where the entire 8-event memory is full should be rare. If this should happen, check the preset programs and cancel one or more to make room for the new program(s) you wish to input.

TO CANCEL A PROGRAM

1. Press PROGRAM.
   - Program 1 is displayed with the number blinking.
2. Press SELECT to review the program contents in succession.
3. Press CANCEL to erase the program from memory.
   - You can press CANCEL at any stage while the program is open. .
   - To erase another program, press SET when a blinking program number is displayed.

NOTE:

Cancelling programs is also possible using the remote control and on-screen display. Press VTR PROG. and check the program contents on the screen using SELECT and SET. Press VTR CANCEL while an unnecessary preset program is on the screen.

Some Facts On Timer Operation

- If the end of the tape is reached during timer-recording, the cassette is automatically ejected and recorder's power is switched off with "TIMER REC" and "TAPE END" flashing alternately on the message display panel.
- When timer-recording is successfully completed, the recorder's power is automatically switched off.
- Since the timer starts and stops recording based on the time being kept by the recorder's built-in clock, the clock's time must be accurate for correct timer-recording results.

VPS Recording

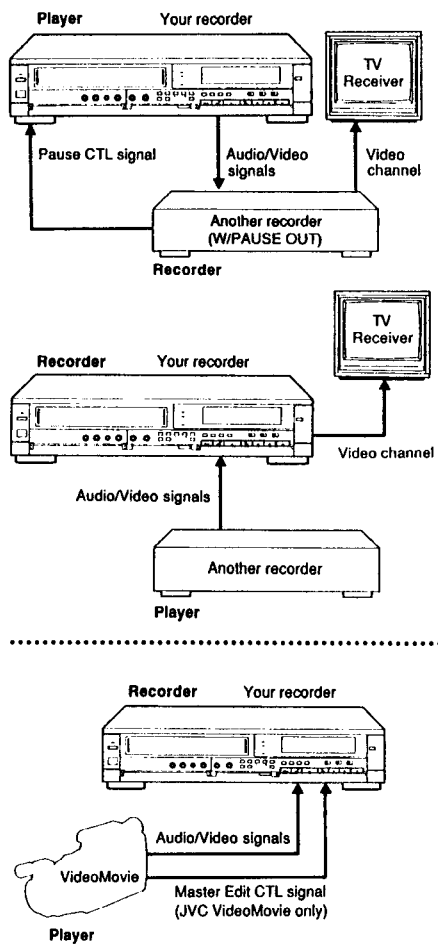
Now available from some TV stations, VPS (Video Program System) is a service designed to assure safe, accurate timer-recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over times you preset in the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed. If your video recorder is an "EG" model, it already incorporates a built-in VPS decoder. If your recorder is an "E" model and you want to take advantage of this service (if available), you must connect an optional adapter (☞ Specifications) to the VPS/VPV/VPT connector on the rear panel of your recorder.

To Use VPS Service

- For each timer program, the initial setting is "VPS ON" and you will see "VPS" on the display panel together with a channel number. You do not have to cancel "VPS" even for non-VPS programmes, because those programmes will be recorded at the preset times.
- To cancel "VPS", press the VPS button. Pressing the VPS button alternates the setting, and "VPS ON" or "VPS OFF" is displayed for 2 seconds.
- When you open the LCD timer memory, the LCD display always shows "VPS". If your video recorder is an "E" version and you have not connected a VPS adapter, be sure to cancel "VPS" by pressing the VPS/CH button before transferring the memory data to the recorder.

For Editing

ENGLISH



Editing To/From Another Recorder

Your video recorder can be used as either the recording deck or the source player when editing tapes. When used as the source player in combination with another video deck which is preroll-capable and equipped with a Pause Control Output terminal, your recorder's PAUSE terminal can accept preroll commands for synchronized preroll editing.

PREPARATION

1. Connect the player's AUDIO/VIDEO connector to the recorder's AUDIO/VIDEO connector.

OPERATION

2. Set the recorder to external input mode (AUX).
   - Press numeric key "0", or press TV PROGRAM (VTR) until "AUX INPUT" appears on the message display.
3. Put the player in the Play mode.
4. Put the recorder in the Record mode.

NOTE:

When using your recorder as a playback deck, select the TAPE DUB mode with the remote's PICTURE button. ☞p.20

Editing From A VideoMovie

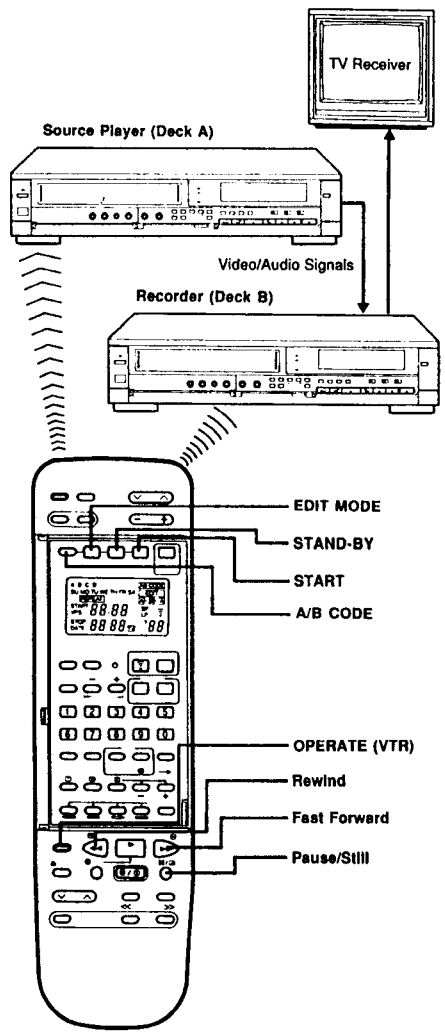
Tape-to-tape editing is also possible using a VideoMovie (equipped with playback facility) as the player and your recorder as the recording deck. In this case, the recorder's PAUSE terminal can be used to accept Master Edit Control commands from the VideoMovie.

PREPARATION

1. Connect the VideoMovie's AV OUT connector to the recorder's AUDIO/VIDEO connector.
2. Connect the AV output cable's mini-plug to the PAUSE terminal of the recorder.
   - If the VideoMovie is equipped with the Master Edit Control system, you can control the recorder using the VideoMovie's controls. See VideoMovie's instruction manual for operating procedures.
   - With this connection, you can also use the VideoMovie as a video camera for direct recording onto the recorder's tape. Put the recorder in Record-Pause and use the VideoMovie's start/stop trigger to start and pause recording. (For direct recording with a separate video camera, a camera adapter is necessary.)

For Editing (Cont'd)

ENGLISH



CAUTION:

[illegible] If this happens switch back to the A mode.

Duet Editing

For those who have two JVC video recorders and are interested in editing, this function will simplify editing operations by delivering separate commands to two recorders simultaneously from a single remote control in the form of separate "A" and "B" control codes. (Designated JVC models only.)

PREPARATION

1. Connect two JVC recorders. (PAUSE connection not necessary.) ☞p.28.
2. Set one recorder to respond to A code signals (deck A), and the other to respond to B code signals (deck B). ☞"A/B Code Switching"
3. Place the two decks side by side.
4. Load a recorded tape into deck A, and a blank tape into deck B.
   - Make sure the clock of the remote control has been set.

OPERATION

5. Press the EDIT MODE button. ("EDIT" and "A → B" will appear on the LCD.)
   - If you are using deck B as player, and deck A as recorder, press the A/B CODE button. "A → B" will be replaced with "B → A".
6. Press STAND-BY. Deck A enters Still mode, deck B enters Record-Pause mode.
7. Search for a scene you want to edit from deck A to deck B (only the tape in deck A will move) and press ▮▮ (Pause/Still).
8. Press START. Deck A enters Play mode, B enters Record mode.
9. Press ▮▮. Deck A enters Still mode, B enters Record-Pause mode.
   - Repeat steps 7, 8, and 9 to continue editing.
10. Press EDIT MODE to cancel the Duet Edit mode.

A/B Code Switching

The remote control is preset to send A code signals (indicated by "A CODE" on the LCD) because your video recorder is initially set to respond to A code signals. You can easily modify your video recorder to respond to B code signals.

1. Unplug the recorder's power cord from the AC outlet.
2. Press the A/B CODE button. ("B CODE" will appear on the LCD.)
3. Plug the power cord back into the AC outlet. Do not use other remote controls at this stage.
4. Turn the recorder power on using the remote control's OPERATE (VTR) button. The recorder will now only respond to B code signals.

NOTE:

You can operate two recorders (A and B) independently from your remote control. Except in the Duet Edit mode, it will send either A or B code signals only, selected with the A/B CODE button.

Special Operations

ENGLISH

Setting The Recorder's Clock Directly

To set the recorder's clock, all you have to do is transfer the LCD clock data again (☞p.9). If you prefer to set or adjust the recorder's clock directly at the recorder, read on.

1. Press PROGRAM/CLOCK ADJ.
   - If you are only adjusting the time, the Timer Program mode will be engaged first. So press PROGRAM/CLOCK ADJ. again.
2. Press SET (+ or –) to input the hour.
3. Press SELECT, and then SET (+ or –) to input the minute.
   - If you are only adjusting the time, skip steps 4 – 6.
4. Press SELECT, then SET to input the day.
5. Press SELECT, then SET to input the month.
6. Press SELECT, then SET to input the year.
7. Press PROGRAM/CLOCK ADJ.

NOTES:

- If the day and month data is invalid (such as 31st April), the month digits are cleared automatically and the day digits will blink. Input again.
- If the year digits are automatically cleared when the PROGRAM/CLOCK ADJ. button is pressed in step 7, it is possible that you have input 29th February for a non-leap year. The day digits will blink. Input again.

Setting The Clock Forward Or Backward By One Hour (Daylight Saving Time Adjustment)

This adjustment can be done independently for the LCD clock and the recorder's clock.

TO ADVANCE THE TIME BY ONE HOUR

- Press SUMMER TIME ADJ. (ADJUST) and quickly release.

TO SET THE TIME BACK BY ONE HOUR

- Keep SUMMER TIME ADJ. (ADJUST) pressed for more than 2 seconds.

Turning Off The Display

The fluorescent display on your JVC recorder can be switched off at any time.

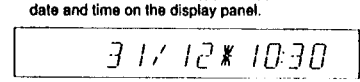
1. Press the DISPLAY OFF button on the recorder. The lights in the display will go out.

2. To restore the display, press the DISPLAY OFF button again.

Locking The Recorder's Controls

To avoid unwanted operation and prevent accidental recording or other interference, use the Child Lock function.

1. Press the remote control's OPERATE (VTR) button to turn the recorder's power off. Keep this button pressed for about 2 more seconds after the power LED indicator has gone off.
   - The Child Lock indicator (⚷) will appear between the date and time on the display panel.



2. Child Lock is automatically deactivated when you switch the recorder's power on again with the remote's OPERATE (VTR) button.
   - Pressing the TIMER button during timer-recording also deactivates the Child Lock mode.

NOTES:

- While the Child Lock mode is engaged, make sure you keep your remote control in a safe place inaccessible to children.
- Timer-recording is possible in the Child Lock mode. After timer-recording has been performed, the Child Lock mode remains in effect.

Special Operations (Cont'd)

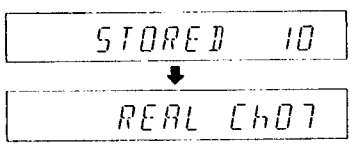
ENGLISH

Changing Preset Channels

TO CHECK STORED REAL CHANNELS

This is possible both at the recorder and with the remote control. First turn on the recorder.

1. Press TV PROG. to select the channel position of the stored real channel whose number you want to know. (e.g. PR. 10)
2. Press CH SET.



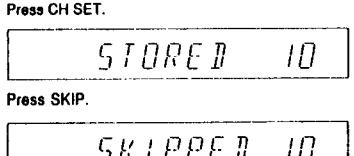
- This indicates that channel position 10 stores real channel 7.

3. To check other channel positions, press TV PROG.
   - Either "STORED xx" or "SKIPPED xx" will appear, followed by "REAL Ch xx" or "REAL CC xx".
4. The Channel Set mode will be cancelled in about 10 seconds unless you call up another channel position. Do not press the CH SET button; this alternates between Ch and CC bands.

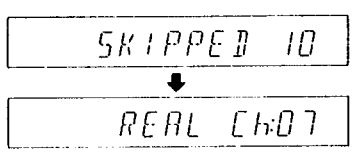
TO DELETE STORED CHANNELS

Use the recorder's controls. First turn on the recorder.

1. Press TV PROG. to select the channel position you want to skip. (e.g. PR. 10)
2. Press CH SET.



3. Press SKIP.

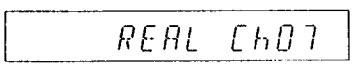


- This indicates that real channel 7 has been deleted from channel position 10.

TO STORE NEW CHANNELS

Use the remote control since its 10 numeric keys can access real channels and channel positions directly. (Using the recorder's auto SEARCH button will clear all preset channels.) First turn on the recorder.

1. Press VPS/CH.



2. Press VPS/CH again and keep it pressed until the real channel number starts blinking.
3. Press VPS/CH to change the band between Ch and CC, if necessary.
4. Press numeric keys to input the ~~number of the~~ real channel you want to store. (e.g. Ch 15.)

5. Press numeric keys to input the number of a vacant channel position (e.g. 20), and hold the key for the 2nd entry until the display changes to "STORED 20".

- The Channel Set mode will be cancelled automatically after about 10 seconds.

ATTENTION

The "real channel" numbers displayed on the recorder may not correspond to channel designations in your area.

ITALY

Display	Ch	13	14	15	16	17	18	19	20	11	12
Corresponding channel		A	B	C	D	E	F	G	H	H1	H2

BELGIUM

Display	CC	01	02.....10	11.....20
Corresponding channels		80(M1)	81(M2)...89(M10)	90(U1)...99(U10)

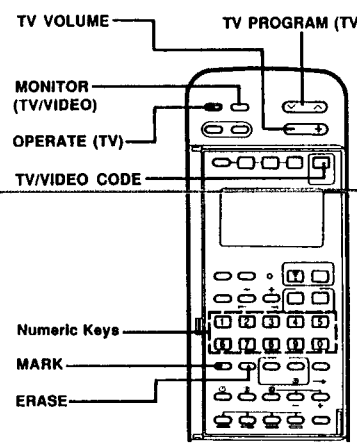
SWITZERLAND

Display	00	70	70	77
Corresponding channel		X	Y	Z

Using The Remote Control For TV Operation

ENGLISH

The provided remote control can operate the basic functions of your television. In addition to JVC televisions, other manufacturers' televisions listed here can also be controlled by setting the remote control to the corresponding TV code. The remote control's default code is "1", which enables control of most JVC televisions without re-setting. If your JVC television is equipped with 10+ and 20+ buttons on its remote control, you have to set the TV code to "9".



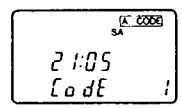
CODE	TV BRAND NAME
1	JVC
2	GRAETZ ITT LUXOR SALORA SELECO
3	BRANDT NORDMENDE SABA TELEAVIA TELEFUNKEN THOMSON
4	FERGUSON
5	PHILIPS
6	BLAUPUNKT GRUNDIG
7	SONY
8	PANASONIC
9	JVC

IMPORTANT

Although the provided remote control unit is compatible with JVC televisions, as well as many TV models manufactured by others, it is possible that the provided remote control will not work with your TV, or in some instances, will have limited function capability.

Setting The TV Code

1. Press TV/VIDEO CODE for longer than 2 seconds.
   - The LCD will show the current code (initially "Code 1").
2. Press a numeric key corresponding to the code number for your TV's brand.
   - The LCD will return to the clock mode after 2 seconds.



NOTES:

- TV code setting is not possible unless the clock has been set.
- Whenever you replace batteries in the remote control or initialise the LCD memory (☞p.4), it is necessary to re-set the TV code, if your television is not a Code 1 JVC TV.

To Control Your Television With Buttons Exclusively For TV

- Press OPERATE (TV) to turn the TV power on.
- Press MONITOR (TV/VIDEO) to switch the TV between TV and VIDEO (or AV) mode.
- Press TV PROGRAM (TV) to select the TV's channel.
- Press TV VOLUME to adjust the TV's sound volume.

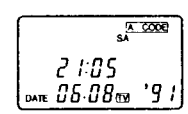
NOTES:

- The TV PROGRAM (TV) button does not function with televisions using Code 3.
- The MONITOR (TV/VIDEO) button does not function with televisions using Code 4.
- With some televisions, the OPERATE (TV) button functions only to turn the TV power off, and the MONITOR (TV/VIDEO) button functions only to switch the TV to the ~~VIDEO (A/V) mode~~.

To Control Your Television With Additional Buttons

The numeric keys can also be used to select the TV's channel by setting the remote control to the TV mode.

1. Press TV/VIDEO CODE.
   - "TV" will appear on the LCD.
2. Use the numeric keys and MARK/ERASE to select the TV's channel while "TV" is on the LCD.
   - With televisions using Code 1, 4, 5, 7, or 8, both the MARK and ERASE buttons correspond to the 1-digit/2-digit entry switching button (often labelled -/--) of your TV's remote control.
   - With televisions using Code 2, 6, or 9, the MARK button corresponds to the 10+ button, and the ERASE button, to the 20+ button of your TV's remote control.



NOTE:

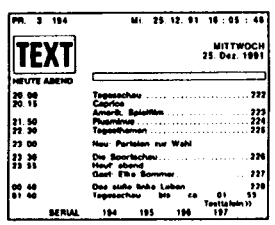
The way these buttons are used is determined by your TV. Use these buttons as instructed for your TV's remote control.

Using The Optional Teletext Adapter

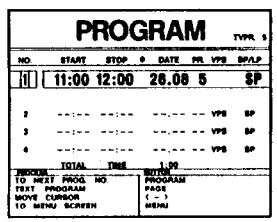
ENGLISH

Teletext services have established themselves as one of the most flexible sources of information and broadcast schedules available to TV and video users. Your video recorder is ready to take full advantage of these services. By connecting an optional teletext adapter (☞ Specifications), you'll not only be able to view the vast number of teletext pages now available, you'll be able to transfer broadcast schedule data directly to your recorder's timer for instant, automatic timer programming. You'll also be able to make full use of your remote control's capabilities, with all the dual or triple function controls working as intended. Here are just a few examples of features available to you when you connect an optional teletext adapter.

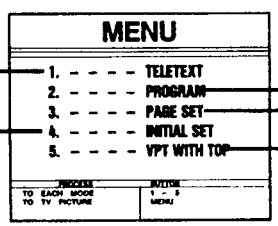
TELETEXT
- View broadcast teletext pages.
- Several page access modes are available for quick, convenient location of pages you want to see.
- You can program the video recorder's timer directly using TV schedule pages.



PROGRAM
- Check timer recording data on the colour on-screen display.
- Program the timer manually with the remote's numeric keys.



PAGE SET
- You can preset favourite or often-referred-to pages for immediate access.
- Up to four pages can be stored on each of the numeric keys, for a total of 40 pages.



VPT WITH TOP
- TOP automatic teletext timer programming.
- Convenient colour-coded page access.

"5.- - - - VPT WITH TOP" only appears when the video recorder's tuner is tuned to a station transmitting TOP broadcasts. (Applicable only in certain areas.)

INITIAL SET

LANGUAGE
- Select one of four languages (English, German, Italian, or Swedish) for on-screen messages.

CLOCK ADJUST
- Set the recorder's clock manually using the numeric keys.
- Set the recorder's clock automatically by reading [illegible] information.

ATTENTION

Some buttons on the remote control unit are labelled with pictograms indicating the functions that can be used when the VPT adapter is connected. When reading the VPT adapter's instruction manual, keep in mind the correspondence between these pictograms and the labels referred to in the instruction manual:

[illegible] : LARGE/NORMAL
? : REVEAL
: TIMED PAGE
: RESET
: HOLD
: MIX
→ : ROTATE

List Of Display Panel Messages

ENGLISH

Messages not appearing elsewhere in this manual are listed here. More common messages are all clearly illustrated in the relevant sections.

Displayed Message	When It Appears, What It Means
During Clock Set	
12:59 30/11/91	"12:59" is input for the time. "30th November, 1991" is input for the date.
During Program Set	
VPS ON	"VPS" status is changed from OFF to ON. Displayed for 2 seconds.
VPS OFF	"VPS" status is changed from ON to OFF. Displayed for 2 seconds.
During Channel Set	
REAL CC 02 REAL CC :15	"Real Channel 02 in CC band" is stored. "Real Channel 15 in CC band" is received, but not stored.
FINE -CC 15 - -	"Fine tuning" is engaged for "Real Channel 15 in CC band".
During Normal Operation	
SPEED SP	Tape speed is changed from LP to SP. Displayed for 5 seconds.
SPEED LP	Tape speed is changed from SP to LP. Displayed for 5 seconds.
AUDIO DUB A DUB P	Audio dubbing is in progress. Audio dubbing is paused.
AUX INPUT AUX INPUT 2	External input is selected. External input 2 is selected by pressing the SIMUL/AUX 2 button from AUX INPUT.
SIMULCAST	Simulcast recording is selected by pressing the SIMUL/AUX 2 button. Displayed for 5 seconds.
REC SP AUX	Recording "External Input" via AUDIO/VIDEO in the SP mode.
REC LP AUX	Recording "External Input" via AUDIO/VIDEO in the LP mode.
REC SP AU2	Recording "External Input" via AUDIO IN in the SP mode.
REC LP AU2	Recording "External Input" via AUDIO IN in the LP mode.
PAUSE AUX	Recording is paused during REC SP (or LP) AUX.
PAUSE AU2	Recording is paused during REC SP (or LP) AU2.
REC VPS	VPS recording is in progress.
SKIP	Skip Search is started. Displayed for 5 seconds.
BLANK	Blank Search is started. Changes to REMAIN after 5 seconds.
INDEX +9	Searching for the 9th index code in the forward direction.
INDEX -4	Searching for the 4th index code in the reverse direction.
MARK	Index code is being marked.
ERASE	Index code is being erased.
REPEAT	Blinking during rewind for Repeat Playback.

Displayed Message	When It Appears, What It Means
During Next Function Memory	
REW – OFF ↵ OFF ↵	Will rewind to the beginning and then shut off automatically.
REW – PLAY ↵ PLAY ↵	Will rewind to the beginning and then start playback automatically.
REW – TIMER ↵ TIMER ↵	Will rewind to the beginning and then enter the timer mode automatically.
REW – EJECT ↵ EJECT ↵	Will rewind to the beginning and then eject the tape automatically.
Clock and Counter Displays	
4:30:15	Tape counter reading of "4 hours, 30 minutes, 15 seconds".
31/12 10:30	It is 31st December, 10:30.
	(Standard date/time display when recorder power is turned off)
31/12 🔒 10:30	Same as above with Child Lock ON.
REC LP 1:30	Recording in the LP mode with the Off Timer set to shut off in 1 hour 30 minutes.
TIMER 🔒 10:30	It is 10:30 and the Timer Standby mode is engaged with Child Lock ON.
VPS 12:59	It is 12:59 and the VPS standby mode is engaged.
VPS 12:59 SET CLOCK 🔒	Same as above with Child Lock ON. The clock is not set. Please set it. The recorder is locked with Child Lock ON..
Other Messages	
GOOD MORNING ↵ GOOD AFTERNOON ↵ GOOD EVENING ↵	Automatic greetings when the recorder is turned on.
GOOD-BYE GOOD NIGHT	Automatic greetings when the recorder is turned off.

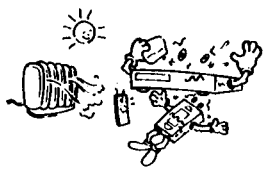
NOTE:

This list represents the various types of messages your recorder is capable of generating. Actual messages displayed by your recorder (esp. if date, time, channel, tape counter reading, or other variables are involved) will differ slightly from those listed here.

Precautions

ENGLISH

Recorder, Remote Control, And Cassette Care



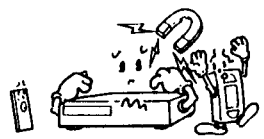
Avoid extreme heat and direct sunlight

Avoid extreme cold

Avoid extreme humidity

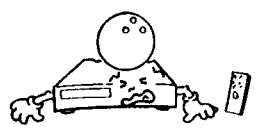
Avoid dust

Avoid places subject to vibrations



Avoid strong magnetic fields

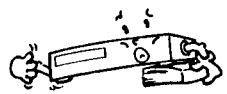
Do not block the recorder's ventilation openings



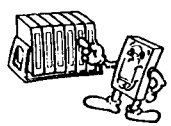
Do not place anything heavy on the recorder or remote control

Do not place anything which might spill on top of the recorder or remote control

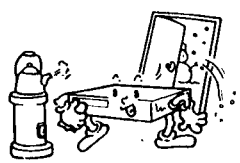
Do not place the recorder on cushions, pillows, or thick carpeting



Use the recorder in a stable, horizontal position only

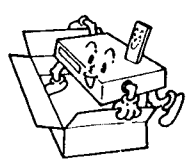


Place cassettes in cassette cases and store vertically



Beware of moisture condensation

Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions — just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder's power turned on for a few hours to let the moisture dry.



When transporting

- Be sure to remove cassette from recorder before packing
- Avoid violent shocks to the recorder during packing and transport

Specifications

GENERAL

Power requirement	:	AC 220 – 240 V~, 50/60 Hz
Power consumption	:	34 W
Temperature	:	5°C to 40°C (Operating)
	:	–20°C to 60°C (Storage)
Operating position	:	Horizontal only
Dimensions (WxHxD)	:	435 x 94 x 339 mm
Weight	:	5.7 kg
Format	:	VHS PAL standard
Tape width	:	12.65 mm
Tape speed (SP)	:	23.39 mm/sec
Tape speed (LP)	:	11.70 mm/sec
Maximum recording time (SP)	:	240 min. with E-240 video cassette
(LP)	:	480 min. with E-240 video cassette

VIDEO

Signal system	:	PAL colour and CCIR monochrome signals, 625 lines/50 fields
Recording system	:	Rotary two-head helical scan system with slant double-azimuth combination video heads
Input	:	0.5 to 2.0 Vp-p, 75 ohms, unbalanced
Output	:	1.0 Vp-p, 75 ohms, unbalanced
Signal-to-noise ratio	:	43 dB (Rohde & Schwarz noise meter)
Horizontal resolution	:	250 lines

AUDIO

Input	:	Mic:-67 dBs, high impedance, unbalanced
	:	AUDIO IN connector (RCA x 2): -8 dBs, 50 k-ohms, unbalanced
	:	AUDIO/VIDEO socket (21-pin Peri connector):-3.8 dBs, (CENELEC standard), 10 k-ohms, unbalanced
Output	:	AUDIO OUT connector (RCA x 2): -6 dBs, high-impedance load less than 1 k-ohm, unbalanced (100 k-ohms, load)
	:	AUDIO/VIDEO socket (21-pin Peri connector):-3.8 dBs, (CENELEC standard), high-impedance load less than 1 k-ohm, unbalanced

NORMAL AUDIO

Recording system	:	Longitudinal track
No. of audio channels	:	1 (monaural)
Frequency range	:	70 Hz to 10,000 Hz

HI-FI AUDIO

Recording system	:	Deep-layer recording system conforming to stereo Hi-Fi VHS standard
No. of audio channels	:	2 Hi-Fi audio channels
Frequency response	:	20 Hz to 20,000 Hz
Dynamic range	:	More than 90 dB
Wow and flutter	:	Less than 0.005% WRMS

TUNER

Tuning system	:	Frequency synthesized tuner
TV channel storage capacity	:	48 positions (+ AUX position "AU")
Channel coverage	:	VHF 47 – 111 MHz
		111 – 300 MHz
		302 – 470 MHz
		(Hyper band for PAL)
		UHF 470 – 862 MHz
Aerial output	:	UHF channel 36 (adjustable 32 – 40)

TIMER

Clock reference	:	Quartz-crystal
Programme capacity	:	1-year/8-programme timer
Memory backup time	:	60 min.

ACCESSORIES

Provided accessories	:	Aerial cable Infrared remote control unit "R6" battery x 2
Optional accessories (EG)	:	VPV adapter VU-V120E VPT adapter VU-V140E
Optional accessories (E)	:	VPS adapter VU-V110E VPV adapter VU-V120E VPS/VPV adapter VU-V100E VPT adapter VU-V140E VPS/VPT adapter VU-V150E

Specifications shown are for SP mode unless otherwise specified.
Design and specifications subject to change without notice.

ENGLISH

In Case Of Difficulties

ENGLISH

POWER AND TAPE TRANSPORT PROBLEMS

Symptoms	Check points
No power is applied to the recorder.	■ Is the power cord disconnected? — Connect it.
Clock is functioning properly, but the recorder cannot be powered.	■ Is "TIMER" displayed on the display panel? — Press the TIMER button to extinguish the display.
Tape does not run during recording.	■ Is "PAUSE" displayed on the display panel? — Press the PLAY button to extinguish the display.
Tape stops during rewind or fast-forward.	■ Is the C. MEMORY button pressed? — Press again to make "M" disappear from the display panel.
Tape will not rewind or fast-forward.	■ Is the tape already fully rewound or fast-forwarded? — Check the cassette.

RECORDING PROBLEMS

Symptoms	Check points
Recording cannot be started.	■ Is a cassette loaded? ■ Is the safety tab on the cassette removed? — Reseal the slot with adhesive tape.
TV broadcasts cannot be recorded.	■ Has "AUX" been selected? — Set to the desired channel.
Tape-to-tape editing is not possible.	■ Is the VideoMovie or another video recorder correctly connected? ■ Are all necessary power switches turned ON? ■ Has "AUX" been selected? — Set to "AUX".
Camera recording is not possible.	■ Is the VideoMovie correctly connected? ■ Has "AUX" been selected? — Set to "AUX".
Timer recording is not possible.	■ Have you set the clock correctly and programmed the timer correctly? — Check once again. ■ Is "TIMER" displayed on the display panel? — If not, press the TIMER button to display "TIMER".

PLAYBACK PROBLEMS

Symptoms	Check points
Playback picture does not appear while the tape is running.	■ If you are using RF OUT connection, is the TV receiver's channel selector set to the correct video channel? — Set it to the RF converter channel (UHF 36). (☞p.7) ■ If you are using AV connection, is the TV receiver set to the AV mode? — Set it to the AV mode.
Playback is repeated.	■ Is the REPEAT switch set to either FULL or INDEX? — Set it to OFF.
Noise appears during visual search.	■ This is normal.
Noise appears during normal playback.	■ Is the automatic tracking mode engaged? — Try manual tracking. (☞p.19)
Noise appears during slow motion playback.	— Try manual tracking. (☞p.19)
Noise appears during still playback.	— Press Pause/Still a few times to remove the noise bars from the screen.
Playback picture is blurred or interrupted while TV broadcasts are clear.	■ Video heads may be dirty. — Head cleaning is necessary. Consult your JVC dealer. (☞p.38)

HI-FI AUDIO PROBLEMS

Symptoms	Check points
TV sound cannot be recorded on Hi-Fi audio track.	■ Has the SIMUL/AUX 2 button been pressed? — Check by pressing OSD. If "SIMUL" appears on the screen, cancel it by pressing SIMUL/AUX 2 button.
Breaks are noticeable in Hi-Fi audio reproduction.	■ Is the automatic tracking mode engaged? — Try manual tracking. ☞p.19

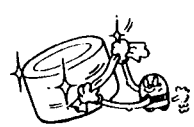
OTHERS

Symptoms	Check points
Whistling or howling is heard from TV during camera recording.	■ Move VideoMovie or camera's microphone away from TV or reduce TV sound volume.
Clock setting is not possible.	■ Is "TIMER" displayed on the display panel? — Press the TIMER button to extinguish the display.
Some channels are skipped over when scanning channels.	■ Those channels are preset to be skipped over. If you need the, restore them. (☞p.31)
Channel cannot be switched.	■ Is recording in progress? — Press the PAUSE/STILL button, change the channel, and press the PLAY button.
Remote control does not function.	■ Are the batteries discharged? — Replace with new ones. ■ Is the A/B CODE indicator showing the proper code for the recorder being operated? — Press the A/B CODE button for the correct setting.
Index Search does not function properly.	■ Adjacent index codes may be too close to each other. — Erase some index codes and mark new ones if necessary, with sufficient distance between any two index codes.

ATTENTION:
This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. Then plug it in again and switch on. Take out the cassette. After checking the cassette, operate the unit as usual.

Special Note On Head Cleaning

Accumulation of dirt and other particles on the video heads may cause the playback picture to become blurred or interrupted. Although this model is equipped with a built-in head cleaner which automatically cleans the heads, reducing the likelihood of dirty heads, if such troubles are encountered please consult the nearest JVC dealer.



Auto Head Cleaner

A built-in head cleaner automatically cleans the video heads and head drum whenever a tape is loaded or unloaded to reduce head clogging.